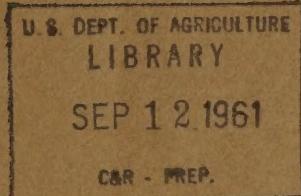
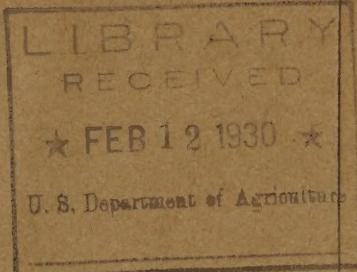


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AN EXTENSION PROGRAM  
IN RANGE LIVESTOCK AND HUMAN NUTRITION  
FOR THE WESTERN STATES

W. A. LLOYD,  
Regional Agent in Charge,  
Western States,  
Office of Cooperative Extension Work



UNITED STATES DEPARTMENT OF AGRICULTURE  
Extension Service  
Office of Cooperative Extension Work  
Washington, D. C.

February, 1930



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FOREWORD

The Western States Regional Extension Conference was held at State College, N. Mex., November 4 to 8, 1929. It was a continuation of the series of fact-organization and program-making conferences begun at Fort Collins, Colo., in 1923. The phases of the regional extension program given consideration at Fort Collins and the successive conferences held at Tucson, Ariz., Pullman, Wash., Reno, Nev., and Laramie, Wyo., have been range livestock, human nutrition, dairying, major farm crops, home management, clothing, farm management, and poultry. The conference at Laramie, Wyo., in 1928, was devoted primarily to supervisory problems. At the conference in 1929, instead of taking up a new subject, a review was made of the progress made since 1923 in putting into effect the recommendations of the Fort Collins conference in the fields of human nutrition and range livestock. Essentially the same procedure was followed as in previous conferences of this type.

During the preceding year facts had been assembled and organized. Both a field and a report study had been made by the extension animal husbandman and extension nutritionist of the Department of Agriculture of results accomplished. A report of these studies was presented to the conference in the form of papers. Various subcommittees considered these papers and the original program in determining what reaffirmation, change, or addition might be desirable in view of the six years' experience. The subcommittee reports were considered by the general nutrition and livestock committees, each of which submitted a report. These reports



were in turn considered and revised by a coordinating committee consisting of the directors of extension from each State represented at the conference with the regional agent in charge of extension work in the Western States as chairman. This report in turn was submitted to the conference as a whole and adopted as it appears below.

The general program committee in charge of the State College conference consisted of W. L. Elser, director of extension of New Mexico, Chairman; A. E. Bowman, director of extension of Wyoming; C. W. Creel, director of extension of Nevada; and Madge J. Reese, field agent, Western States, Extension Service, United States Department of Agriculture.

The regional conference for 1930 will be held at the Montana Agricultural College, Bozeman, Mont., in August.

#### REPORT OF COMMITTEE ON RANGE LIVESTOCK

The committee is of the opinion that with slight modification and rearrangement, the program as adopted at the regional extension conference at Fort Collins in 1923 should be the basis for the continuation of future extension activity in the field of range livestock production. Six years' experience has proved that this program is basically sound as a guide for the activities of extension workers in the Western States. (See Department Circular 308).

Following is the range-livestock production program:

##### I. Range management.

###### A - Range revegetation and maintenance.

- (1) Proper class of livestock.
- (2) Proper number of livestock.
- (3) Proper seasonal use.
- (4) Deferred grazing and rotation grazing.
- (5) Artificial reseeding.
- (6) Rodent control.

###### B - Control of livestock.

- (1) Fencing.
- (2) Water development.
- (3) Salting.
- (4) Herding.
- (5) Corrals.

##### II. Livestock management.

###### A - Standardization of breeding flocks and herds.

- (1) Purebred sires of high quality.
- (2) Culling females.
- (3) Uniform calf crop and lamb crop.
- (4) Control breeding.
- (5) Dehorning, castration, and docking.

###### B - Feeding.

- (1) Supplemental.
  - (a) Roughage.
  - (b) Concentrates.



(2) Fattening.

- (a) Different ages and classes of cattle.
- (b) Different ages and classes of sheep.

C - Reduction of losses.

- (1) Disease prevention and control.
- (2) Parasitic control.
- (3) Predatory animals.
- (4) Poisonous plants.
- (5) Exposure.
- (6) Starvation.

III. Marketing.

A - Orderly marketing of cattle.

- (1) Expansion of marketing season.

B - Lambs.

- (1) Range lambs.
  - (a) Milk-fat lambs.
  - (b) Feeder lambs.

- (2) Fed lambs.
- (3) Farm lambs.

C - Wool and mohair.

- (1) Range wool.
- (2) Farm wool.
- (3) Mohair.

D - Market service.

- (1) Information service.
- (2) Standard classes and grades - cattle, sheep, wool, and mohair.

IV. Organization and operation.

A - Efficient management.

- (1) Fixed and operating capital.
- (2) Economic units.

(a) Numbers and quality.

(b) Interrelationship of farming and range land.

(c) Interrelationship of cattle, sheep, and goats.

B - Classification of production areas.

The immediate future is recommended as a favorable time to eliminate inferior types and low-producing animals from flocks and herds. Returns from sales of animals culled in accordance with the above recommendation might well be used in providing items of equipment, which tend to reduce production costs, particularly those saving in labor.

In order to capitalize properly on the potentialities of the improved flocks and herds resulting from the carrying out of the above, it is recommended that provision be made for ample supplies of feeds, both as provided by the range and through the use of supplements. It is essential that a satisfactory balance between the range and supplemental feed be made and numbers of animals in herds and flocks be adjusted to a conservative estimate of the feed available.



Ranch organization and operation studies emphasize certain outstanding management practices which have distinct application in respective areas.

In order, therefore, that the range-livestock industry be placed on a permanent and more stable basis and yield maximum returns, it is urged that livestock specialists and county extension agents, working in range counties, emphasize the following extension projects:

- (1) Culling of females.
- (2) Improved grazing and feeding practices.
- (3) Application of ranch-management studies.
- (4) Orderly marketing.

Realizing the problems facing the range-livestock industry, among the most important of which is the need of efficient marketing, the committee recommends the development of a national system of marketing livestock and wool.

The development of the range-livestock extension program for the Western States has now reached a stage where the participation of the producer is desirable. Occasional meetings, regional in character, similar to the conferences held at Miles City, Mont., should be held, with attendance by those in the research, resident teaching, and extension fields, together with representative cattlemen and sheepmen, and the larger phases of the range program should be discussed.

It is recommended that arrangements be made to supplement the county agricultural agent annual report forms in order that the results obtained in the carrying out of the above program may be properly and adequately measured and recorded in the permanent, printed records of the United States Department of Agriculture.

C. W. Creel, Director of Extension, Nevada.

E. W. Sheets, Bureau of Animal Husbandry,  
U. S. Department of Agriculture, Washington, D.C.

J. C. Taylor, Director of Extension, Montana.

William Peterson, Director of Extension, Utah.

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## REPORT OF COMMITTEE ON HUMAN NUTRITION

Health is essential to successful farm business and happy farm family life. Therefore all extension projects should be so planned as to contribute their fullest share toward the health of all members of the family and to build the ideal of positive health into the thinking of every farm family. A balanced and sufficient food supply is necessary for health. This supply must be produced on the farm or purchased out of the farm income. All agricultural and home-economics extension projects should be so planned as to provide for an adequate food supply by one or both of the above means.

Practical methods should be developed for bringing about a utilization of this adequate food supply, to include ways of obtaining family cooperation in the establishment of good food habits and to develop desirable practices in food preparation, preservation, refrigeration, and related practices.

### Nutrition Problems Recognized

(1) The food supply is inadequate to meet nutritional needs of the farm family in some sections of the Western States, and in other sections the distribution of available food products is poor.

(2) Physical examinations and weighing and measuring of preschool and school children, also of older 4-H club boys and girls, reveal evidence of poor nutritional conditions.

(3) Lack of information as to proper nutritional needs leads to failure in making an economical and effective use of the food supply available.

(4) Food prejudices and lack of family cooperation are serious obstacles to the acceptance of correct food habits. These difficulties often arise from lack of understanding on the part of parents as to behavior problems related to nutrition.

(5) There is need for research in regard to the place in the diet of many of our local foods such as chili peppers, mesquite beans, and native fruits.

(6) We definitely recognize meat as an essential part of the diet of families in the Western States, and we recommend that this principle be continuously recognized by extension workers.

### Meeting the Problems

(1) Encourage the farm family with a net income of \$1,200 or less to produce a food supply sufficient to meet the requirements of the standard with a minimum cost outlay. Encourage farm families with higher



incomes to produce such a food supply in whole or in part, such products to include milk, eggs, poultry products, meats, vegetables, and suitable fruits, according to the standards for home food production adopted at the Tucson conference in 1924 (page 67, U.S.D.A. circular 335).

(2) Adjust farm finances to provide for the purchase of necessary supplementary foods.

(3) Have a systematic plan for food preservation based on dietary requirements, including canning, drying, and storage.

(4) Bring about an understanding among the farming population of the accepted standards of good nutrition and growth.

(5) Establish in the farm home the following standard of food selection:

Milk: A quart a day for children.  
A pint for adults.

Vegetables: Potatoes.  
One leafy vegetable, green peas or beans.  
Another vegetable.

Fruits: Two servings.  
One at least of these fruits or vegetables to be eaten raw. Canned tomatoes may be substituted for this raw food.

Meat, fish, eggs, cheese, dried peas or beans: Servings from two of these foods.

Whole grain cereals: 2 servings.

Liquid: 6 to 8 glasses.

(6) Continue to emphasize meal planning together with the proper preparation and serving of the essential foods.

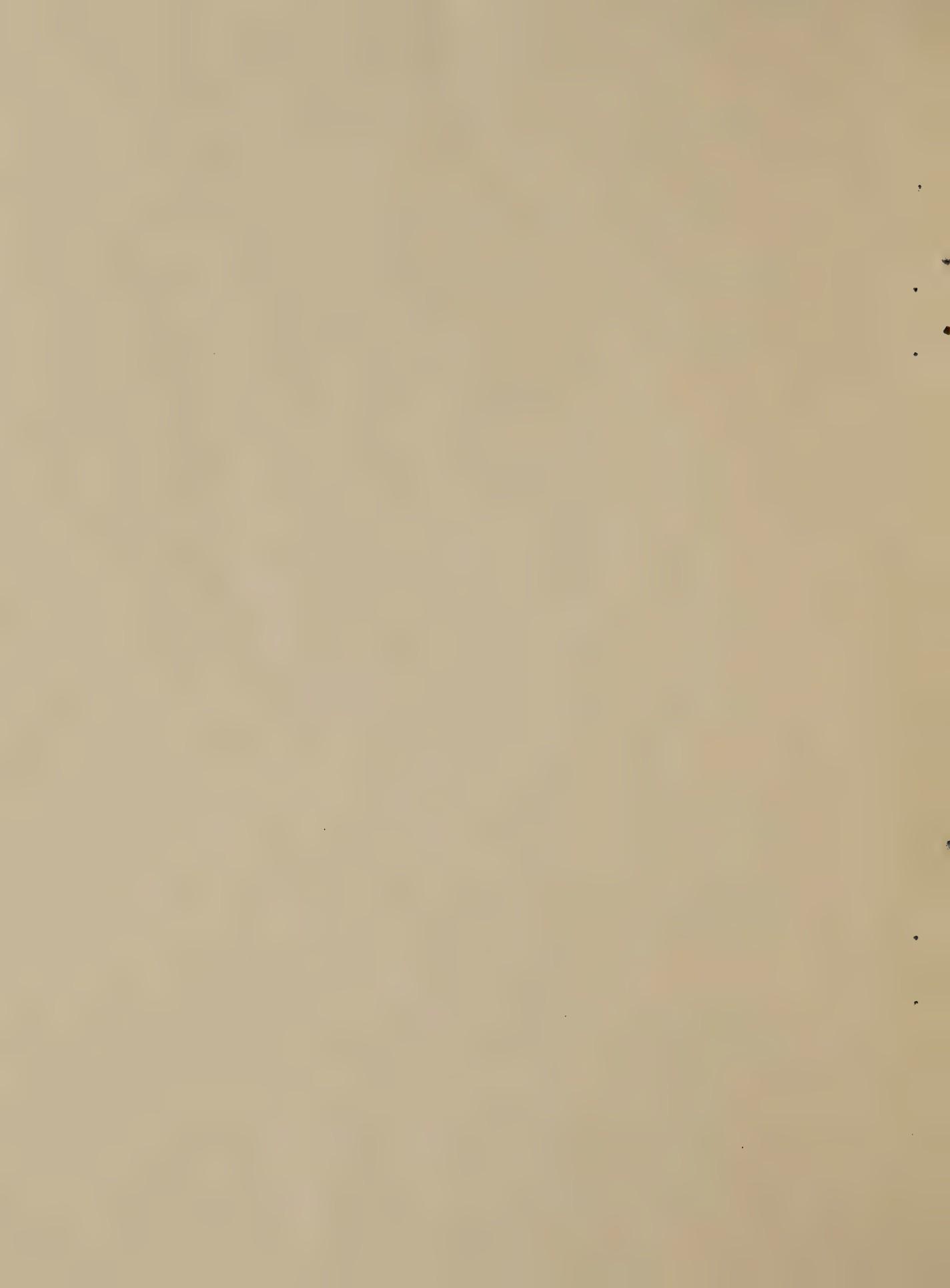
(7) Reach every member of the 498,979 farm families in the 11 Western States with the nutrition program with special emphasis on families with young children.

#### Methods Suggested

(1) Solicit the interest and responsibility of all members of the extension service in promoting and executing the nutrition program. Whenever possible plan close correlation of other projects with the nutrition program.

(2) Make surveys and economic studies of food used in the farm home, and use these facts as a basis for a corrective program.

(3) Interpret results of nutrition research into usable form for rural population.



(4) Place greater emphasis on individual demonstrations which can be set before the whole community as outstanding accomplishments.

(5) Wherever possible incorporate into the nutrition project subject-matter information regarding the related behavior problem. The nutrition project, in common with other home economics projects, needs the reenforcement of a project in parental education and child guidance. States are urged to obtain such help as rapidly as feasible.

(6) Give more thought and attention to convincing publicity.

(7) Use available illustrative material in furthering the nutrition project.

(8) Urge the States to prepare material for strip films on home gardening to take advantage of the service offered by the Federal Office of Cooperative Extension Work in preparation of such films.

The Place of Boys' and Girls' 4-H Club Work in the Nutrition Program

(1) Strengthen the nutrition program by a larger enrollment in 4-H food and nutrition clubs.

(2) Correlate garden and canning club activities wherever practicable.

(3) Incorporate as rapidly as feasible fundamental health and growth work into all 4-H club projects.

(4) It is recommended that the standing nutrition committee of the Western States Extension Conference work out a suggestive four years' program in foods and nutrition club projects including the consideration of suitable project units for older girls. This committee to report not later than the next extension conference.

A. E. Bowman, Extension Director,  
Wyoming, Chairman.

S. B. Nelson, Extension Director,  
Washington.

Hilda Faust, Nutrition Specialist,  
California.

P. H. Ross, Extension Director,  
Arizona.

Evangeline Jennings, Nutrition  
Specialist, Wyoming.

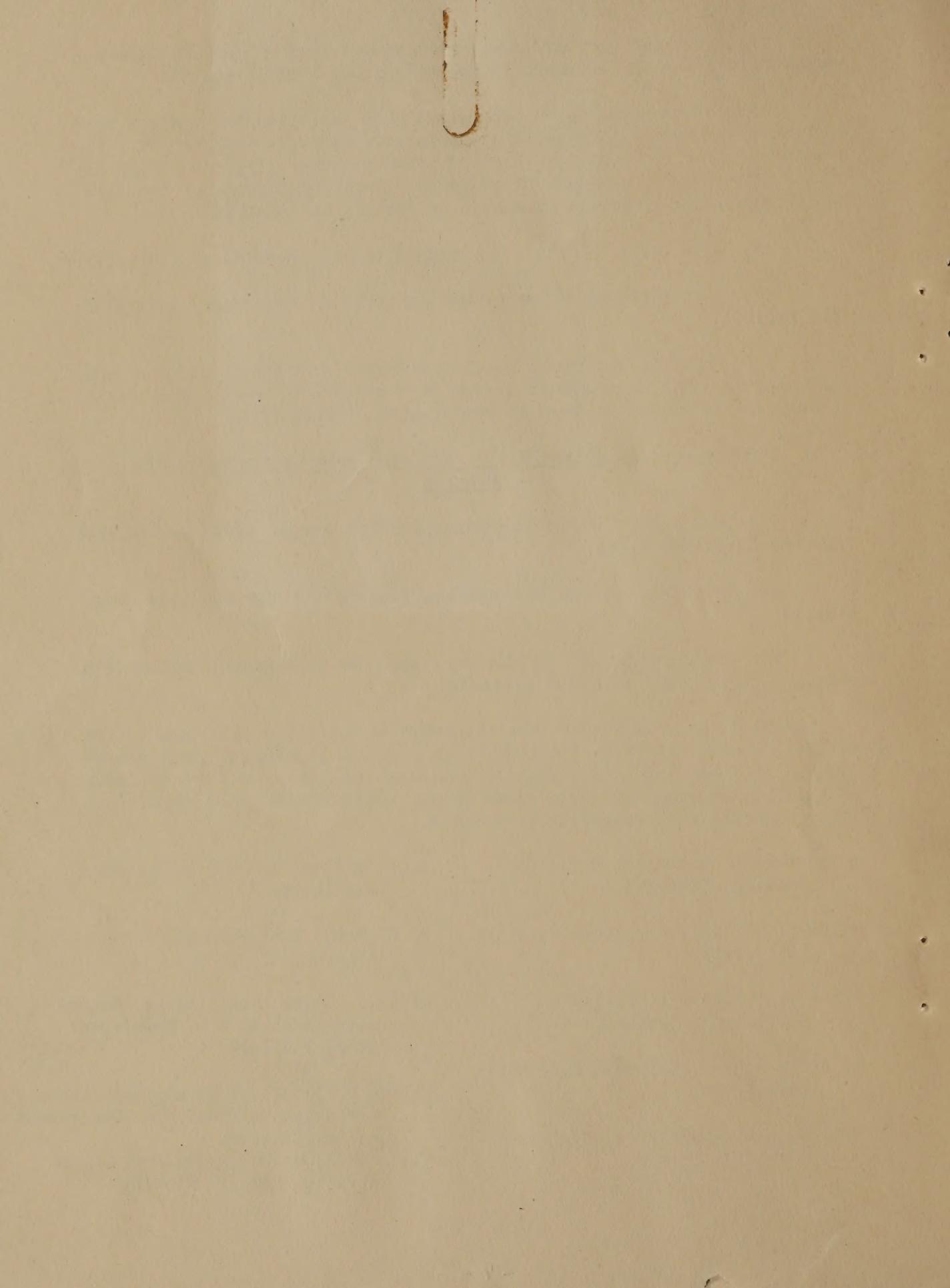
Madge J. Reese, Field Agent, Extension Service, U.S. Department of Agriculture.

E. Belle Alger, Assistant Director,  
Washington.

Miriam Birdseye, Extension Nutritionist Extension Service, U.S. Department of Agriculture.

Mrs. Mary Stilwell Buol, Assistant  
Director, Nevada.

Verna Johannesen, State Home Demonstration Leader, Wyoming.



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